

CLAIMS

1. A computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state, said method comprising:
- 5        modifying selected text segment portions from said process;  
      unmapping instrumented code space such that said instrumented code space is inaccessible to said process;  
      provided an instruction pointer resides in said instrumented code space, updating said instruction pointer to uninstrumented code space;  
10        and  
      executing said process and, provided said process generates a fault by seeking to access an address in instrumented code space, providing a corresponding address in said uninstrumented code space.
- 15        2. The computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state as recited in Claim 1 wherein said selected text segment portions are selected from the group consisting of: breakpoints, branches, switch tables, procedure lookup  
20        tables (PLTs) for said instrumented code space.
3. The computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state as recited in Claim 1 wherein said instrumented code space is comprised of shared memory.
- 25        4. The computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state as recited in Claim 1 further comprising:  
      unwinding a call stack of said process and recording return  
30        addresses of said process.
5. The computer-implemented method for reverting a process in an in-line instrumented state to an uninstrumented state as recited in Claim 4 further comprising:  
35        comparing said return addresses of said process to said address in said instrumented code space which generated said fault upon execution of said process.
6. A computer-readable medium embodying instructions that

cause a computer to perform a method for reverting a process in an in-line instrumented state to an uninstrumented state, the method comprising:

- modifying selected text segment portions from said process;
- 5 unmapping instrumented code space such that said instrumented code space is inaccessible to said process;
- provided an instruction pointer resides in said instrumented code space, updating said instruction pointer to uninstrumented code space; and
- 10 executing said process and, provided said process generates a fault by seeking to access an address in instrumented code space, providing a corresponding address in said uninstrumented code space.

7. The computer-readable medium of Claim 6 wherein said selected  
15 text segment portions are selected from the group consisting of: breakpoints, branches, switch tables, procedure lookup tables (PLTs) for said instrumented code space.

8. The computer-readable medium of Claim 6 wherein said  
20 instrumented code space is comprised of shared memory.

9. The computer-readable medium of Claim 6 wherein said instructions further cause said computer to:  
unwind a call stack of said process and record return addresses of  
25 said process.

10. The computer-readable medium of Claim 9 wherein said instructions further cause said computer to:  
compare said return addresses of said process to said address in  
30 said instrumented code space which generated said fault upon execution of said process.

11. An apparatus for reverting a process in an in-line instrumented state to an uninstrumented state, the apparatus  
35 comprising:

- means for modifying selected text segment portions from said process;
- means for unmapping instrumented code space such that said instrumented code space is inaccessible to said process;

means for updating an instruction pointer to uninstrumented code space provided said instruction pointer resides in said instrumented code space, and

- 5 means for executing said process and, provided said process generates a fault by seeking to access an address in instrumented code space, providing a corresponding address in said uninstrumented code space.

- 10 12. The apparatus of Claim 11 wherein said selected text segment portions are selected from the group consisting of: breakpoints, branches, switch tables, procedure lookup tables (PLTs) for said instrumented code space.

- 15 13. The apparatus of Claim 11 wherein said instrumented code space is comprised of shared memory.

14. The apparatus of Claim 11 further comprising:  
means for unwinding a call stack of said process and recording  
return addresses of said process.

- 20 15. The apparatus of Claim 14 further comprising:  
means for comparing said return addresses of said process to said address in said instrumented code space which generated said fault upon execution of said process.